

### **REMARKS**

In the Office Action<sup>1</sup>, the Examiner rejected claims 1, 2, 6, and 7 under 35 U.S.C. § 102(e) as being anticipated by Kim (U.S. Patent No. 6,617,628 B2, hereafter "Kim"); rejected claims 3 and 5 under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of Kashahara (U.S. Patent No. 6,340,832 B2, hereafter "Kashahara"); and rejected claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of Azuma et al. (U.S. Patent No. 5,814,849, hereafter "Azuma"). Applicant has amended claims 1, 4, and 5, and canceled claim 2. Claims 8, 9, and 11-15 are withdrawn, and thus claims 1, 3-7, and 10 are pending.

Applicant has amended claim 1 to more clearly set forth the present invention incorporating subject matter previously recited in claim 2. Dependent claims 4 and 5 have been amended to reflect the amendments to claim 1, from which claims 4 and 5 depend.

Applicant respectfully traverses the rejection of claims 1, 2, 6, and 7 under 35 U.S.C. § 102(e) as being anticipated by Kim. In order to support a rejection under 35 U.S.C. § 102, each and every element of each of the claim in issue must be found, either expressly described or under principles of inherency, in that single reference. Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." See M.P.E.P. § 2131, quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989). Applicant

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<sup>1</sup> The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicant declines to automatically subscribe to any statement or characterization in the Office Action.

respectfully traverses the rejection, as the cited reference does not teach each and every element of independent claim 1.

Amended claim 1 recites:

a capacitor structure . . . wherein an outer end of the second electrode is entirely positioned outside the first electrode in a direction parallel to a main surface of the semiconductor substrate, and an outer end of the third electrode is entirely positioned outside the second electrode in the direction parallel to the main surface of the semiconductor substrate.

As shown, for example, in FIG. 5B of Kim, the right end of middle electrode 67 is not positioned outside upper electrode 69. The right end of the middle electrode 67 is aligned with the upper electrode 69 in a direction parallel to the main surface of semiconductor substrate 10. In addition, the left end of lower electrode 65 is not positioned outside middle electrode 67. The left end of lower electrode 65 is aligned with the middle electrode 67 in the direction parallel to the main surface of semiconductor substrate 10.

Therefore, even assuming that the upper electrode 69, middle electrode 67, and lower electrode 65, respectively correspond to the claimed "first electrode," "second electrode," and "third electrode," Kim fails to teach each and every element recited in claim 1. Specifically, Kim fails to teach or suggest "an outer end of the second electrode is entirely positioned outside the first electrode," recited in claim 1. Further, Kim also fails to disclose the claimed "outer end of the third electrode is entirely positioned outside the second electrode," as recited in claim 1. Accordingly, claim 1 is not anticipated by Kim.

In view of the above discussed reasons, claim 1 is allowable over Kim. Claims 2, 6, and 7 each depend from claim 1, and accordingly incorporate each and every

element of claim 1. Thus, claims 2, 6, and 7 are also allowable over Kim for at least the reasons discussed above with respect to claim 1. Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 1, 2, 6, and 7 under 35 U.S.C. § 102(e).

Applicant respectfully traverses the rejection of claims 3 and 5 under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of Kashahara. To establish a *prima facie* case of obviousness, three basic criteria must be satisfied. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify a reference or to combine references. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach or suggest all of the claim elements. See M.P.E.P. § 2143. Moreover, the requisite teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure. See *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). See M.P.E.P. § 706.02(j).

Claims 3 and 5 each depend from claim 1, and thus incorporate each and every element of independent claim 1. As discussed above, Kim fails to teach at least "an outer end of the second electrode is entirely positioned outside the first electrode," or an "outer end of the third electrode is entirely positioned outside the second electrode," as recited in claim 1 and required by claims 3 and 5.

Kashahara fails to cure the deficiencies of Kim. Kashahara is drawn to a MIM "capacitor for semiconductor integrated circuits." Col. 1, lines 7-8. However, Kashahara is silent with respect to the claimed "outer end of the second electrode is

entirely positioned outside the first electrode,” as well as the claimed “an outer end of the third electrode is entirely positioned outside the second electrode,” both of which are recited in claim 1. Accordingly, Kashahara fails to cure the deficiencies of Kim.

Thus, Kim and Kashahara, taken either alone or in combination, fail to teach or suggest each and every element recited in claim 1. Therefore, a *prima facie* case of obviousness has not been established by the Examiner’s proposed combination of Kim and Kashahara. Applicant therefore respectfully requests that the Examiner reconsider and withdraw the rejection of claims 3 and 5 under 35 U.S.C. § 103(a).

Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of Azuma. Claim 10 depends from claim 1, and thus claim 10 incorporates each and every element of claim 1. As discussed above, Kim fails to teach each and every element recited in claim 1 and required by claim 10. Azuma fails to cure the deficiencies of Kim, and is instead drawn to a method for “fabrication of thin films . . . used in high dielectric constant capacitors.” Col. 1, lines 20-24. Azuma is silent with respect to the claimed “outer end of the second electrode,” and “outer end of the third electrode,” as recited in claim 1. Azuma therefore fails to cure the deficiencies of Kim. A *prima facie* case of obviousness is therefore not established in view of Kim and Azuma. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of claim 10.

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge  
any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: July 15, 2005

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